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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/587,643

07/28/2006

Naoto Ono

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EXAMINER

SAVAGE, JASON L

ART UNIT

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1794

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/587,643	<b>Applicant(s)</b> ONO ET AL	
	<b>Examiner</b> JASON L. SAVAGE	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060728</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In line 2 of claim 3, there is no basis for the limitation of “using an original plate”. For the purposes of examination, the limitation has been treated as –the original pipe material--.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Otsuka et al. (US 2003/0183292 using US 6,851,455).

Otsuka in Patent 6,851,455 teaches a ferritic stainless steel pipe with a elongation of the circumferential direction of 30% or more and a Lankford value of 1.2 or more (col. 7, ln. 37-43). Otsuka further teaches the ferritic stainless steel may have values (r-value) over 1.5 (col. 5, Table 1).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otsuka et al. (US 2003/0183292 using US 6,851,455).

Otsuka teaches what is set forth above and further teaches the ferritic stainless steel composition may comprise C, Si, Mn, Cr, Mo, Ti and/or Nb in the amounts claimed (col. 4-5, Table 1, such as Examples H and K). Otsuka does not exemplify embodiments wherein P, S, N or B are contained in the ferritic steel composition in the amounts claimed. However, the recited elements are common additives in ferritic steels and thus it would have been obvious to have employed ferritic stainless steels comprising the claimed elements with a reasonable expectation of success. Absent a teaching of the criticality or showing of unexpected results, the claimed elements would not provide a patentable distinction over the prior art.

Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otsuka et al. (US 2003/0183292 using US 6,851,455) in view of Hiroshi et al. (JP 2000-326079).

Otsuka teaches what is set forth above but it is silent to the hardness different of the weld zone and matrix and the ratio of the bead thickness. Hiroshi teaches a ferritic

Art Unit: 1794

stainless steel tube which is welded wherein the hardness difference between the welded portion and base matrix part is between 10-80 HV (abs). Hiroshi teaches that by controlling the hardness difference the workability of the welded stainless steel tub is improved (abs).

As such, it would have been obvious to one of ordinary skill in the art at the time of the invention to have controlled hardness difference of the welded tube of Otsuka to between 10-80 HV in order to improve the workability of the formed component. As such, Otsuka as modified by Hiroshi would overlap and meet the claim limitations wherein the hardness difference is between 10-40 HV. The subject matter as a whole which was disclosed by Kwon would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Malagari* 182 USPQ 549.

Regarding the limitation that the bead thickness ratio of the weld zone to the thickness of the bead in the matrix is within the claimed range, since the prior art teaches the same ferritic stainless steel as claimed comprising Ti or Nb within the claimed range, it has the same elongation and hardness difference as claimed, it is the position of the examiner that the claimed bead thickness would also be within the range claimed by Applicant. The Patent and Trademark Office can require Applicant to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of

Art Unit: 1794

proof is on Applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 U.S.P.Q. 431 (CCPA 1977).

Regarding claim 4, although the references are silent to the recited sizing of the circumferential length, as disclosed by Applicant such as in Figure 6 of the instant Application, the hardness difference and sizing of the circumferential length are closely related properties. Since the prior art of Otsuka in view of Hiroshi teach hardness differences which overlap the range claimed by Applicant, one would expect the circumferential length to be sized within a similar range to that claimed by Applicant.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otsuka et al. (US 2003/0183292 using US 6,851,455) in view of Hiroshi et al. (JP 2000-326079) as applied to claims 2 and 4 above, further in view of Takahashi et al. (US 6,645,318).

The prior art teaches what is set forth above however it does not recite that the article production method includes a step of annealing the welded pipe. Takahashi teaches a fuel tank made of ferritic stainless steel having lasting corrosion resistance, excellent formability, elongation of 30% or larger and high Lankford values (abs). Takahashi further teaches that it is known to anneal ferritic steel components in order to assist in a reduction process and improve the formability of the component (col. 7, ln. 10-32). Takahashi further teaches that the annealing temperature can be between 800

Art Unit: 1794

to 1150°C (col. 7, ln. 20-25). As such, it would have been obvious to one of ordinary skill in the art at the time of the invention to have treated the welded pipe of Otsuka as modified by Hiroshi such as by employing an annealing treatment so as to assist in the reduction process of the component.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON L. SAVAGE whose telephone number is (571)272-1542. The examiner can normally be reached on M-F 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on 571-272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Savage/  
9-28-08

/KEITH D. HENDRICKS/  
Supervisory Patent Examiner, Art Unit 1794